

**FIG. 1**  
(PRIOR ART)

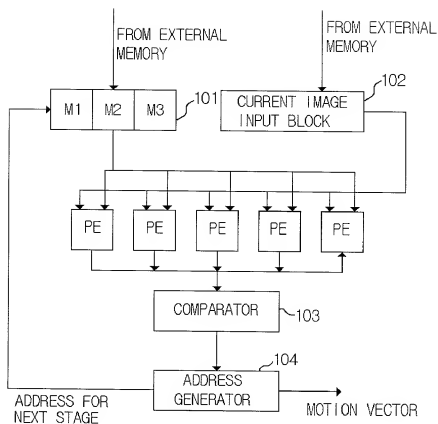


FIG. 2

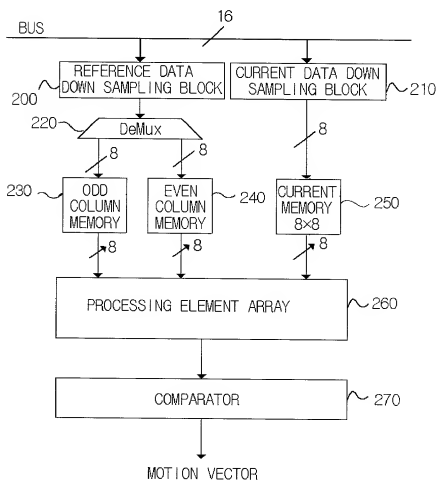
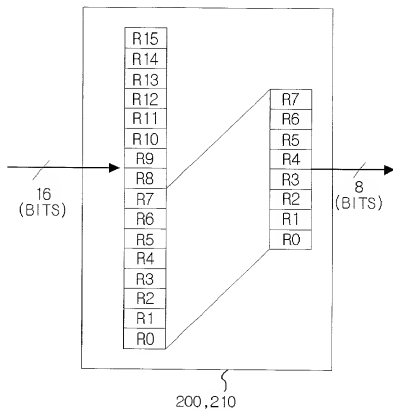


FIG. 3

REFERENCE AND CURRENT DATA DOWN SAMPLING



# Q+A: 2013

[illegible][illegible]

0	ODD	2
24	EVEN	
	ODD	
	EVEN	
	ODD	
	EVEN	
	ODD	

FIG. 5A

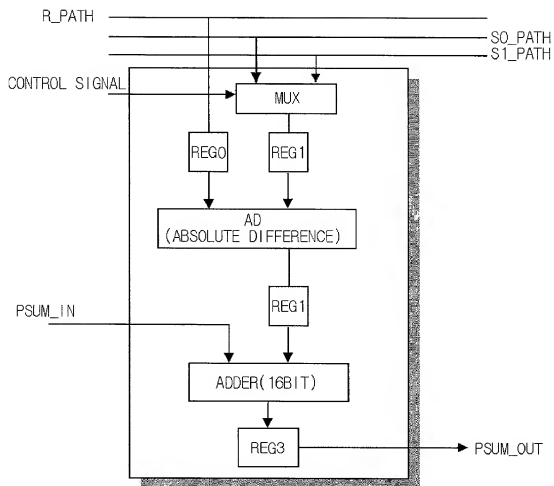


FIG. 5B

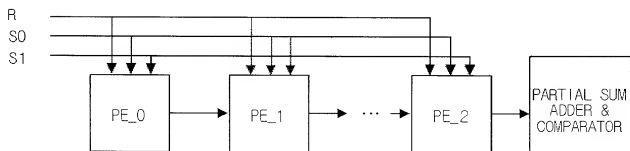


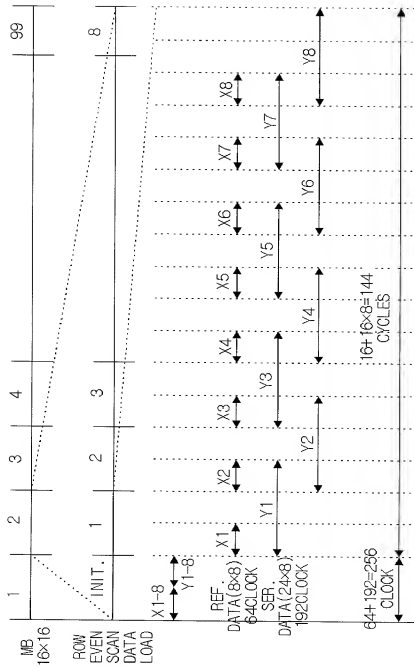
FIG. 6

QCIF(11x9)  
 SEARCH REGION MEMORY WRITE MAP  
 PREFEPELINE "A" WRITE, (0,0) PIPELINE "B" WRITE, OTHERS "C" WRITE  
 READ A->B->C

	0	1	2	3	4	5	6	7	8	9	10
	NEXT ROW WRITE										
0	ABC	ABC	CAB	BCA	ABC	CAB	BCA	ABC	CAB	BCA	ABC
1	BCA	BCA	ABC	CAB	BCA	ABC	CAB	BCA	ABC	CAB	BCA
2	CAB	CAB	BCA	ABC	CAB	BCA	ABC	CAB	BCA	ABC	CAB
3	ABC	ABC	CAB	BCA	ABC	CAB	BCA	ABC	CAB	BCA	ABC
4	BCA	BCA	ABC	CAB	BCA	ABC	CAB	BCA	ABC	CAB	BCA
5	CAB	CAB	BCA	ABC	CAB	BCA	ABC	CAB	BCA	ABC	CAB
6	ABC	ABC	CAB	BCA	ABC	CAB	BCA	ABC	CAB	BCA	ABC
7	BCA	BCA	ABC	CAB	BCA	ABC	CAB	BCA	ABC	CAB	BCA
8	CAB	CAB	BCA	ABC	CAB	BCA	ABC	CAB	BCA	ABC	CAB

00000.00000

FIG. 7



AN INPUT PATH OF AN ODD PATH  
AND AN EVEN PATH IS CHANGED

$$1 \text{ MACROBLOCK} = 144 \times 16 = 2304 \text{ CYCLES}$$